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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,986	09/13/2006	Piero Del Soldato	026220-00061	6969
4372	7590	10/12/2007	EXAMINER	
ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			LAO, MARIALOUIA	
			ART UNIT	PAPER NUMBER
			1621	
			NOTIFICATION DATE	DELIVERY MODE
			10/12/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com
IPMatters@arentfox.com
Patent_Mail@arentfox.com

Office Action Summary

Application No.

10/522,986

Applicant(s)

DEL SOLDATO ET AL.

Examiner

M. Louisa Lao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 4-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 is/are rejected.
- 7) ☒ Claim(s) 1 and 4-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 02/02/2005, 09/15/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicants' election of Group I (claims 1-10) in the reply filed on 8/6/07 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Further, Applicants' rationale that Group III (claim 22) should be in Group I is not persuasive. Albeit, Group III is drawn to a compound made by the process of Group I, the groups are drawn to two different inventions.
2. Claims 11-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 8/6/07.
3. The election a species, (E)-3-(4-hydroxy-3-methoxyphenyl)-2-propenoic acid 4-nitrooxybutyl ester is acknowledged.

Status of the Claims

4. Claims 1 and 3-10 read on the elected species. Claim 2, which does not read on the elected species, is withdrawn from further consideration.
5. Claims 4-10 are withdrawn, as set forth below under "Claim Objections", ¶7.

Claim Objections

6. Claims 1 and 4 are objected to because of the following informalities: in claims 1 and 4, Applicants recite "listed in the specification", "as reported in the specification", "the ferulic

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radical of formula (XXXII)" "formulas (I)-(XXXI) listed in the specification". It is improper to import limitations recited in the specification into the claims. Appropriate correction is required.

7. Claims 4 and 6-10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only, and/or, cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, claims 4 and 6-10 have not been further treated on the merits. Claim 5, which is dependent on claim 4, is likewise objected to and has not been further treated on the merits.

8. Claims 3 and 4 are objected to because of the following informalities: in line 3 of claim 3, Applicants recite "o" after "l" in the series " m, n, q, r, are..". Applicants may have intended to recite "1 or 0", in line 3, Applicants recite "s are 0". In line 3 of claim 4, Applicants duplicated "the". Appropriate correction is required. Applicant is further respectfully requested to check the contents of the application for both typographical and grammatical errors.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

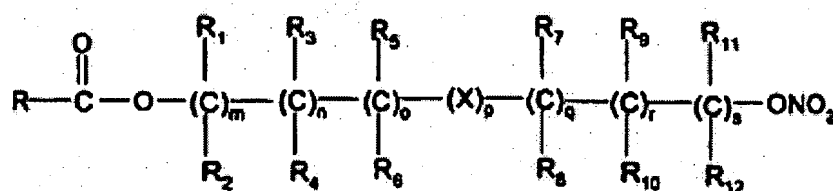
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3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soldato (US5861426, US'426).

13. The instant claims are drawn to a process for preparing a compound of the general



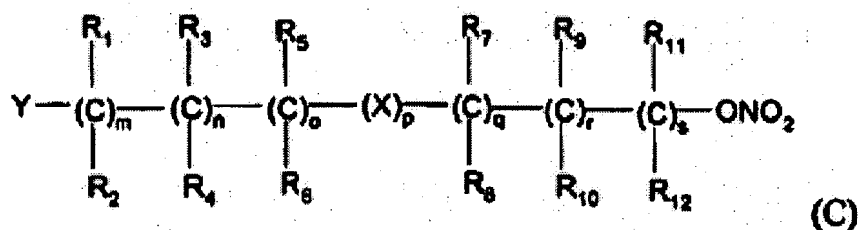
(A)

formula

, with the

substituents defined therein. The process comprising the reaction of a compound of formula (B)

R-COO-Z, with a compound of formula (C), as shown



(C)

, and the substituents as

recited therein.

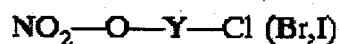
14. US'426 teaches nitro compounds of the formula $A-X_1-NO_2$ (see Abstract).

New compounds and their compositions having anti-inflammatory, analgesic and anti-thrombotic activities, of the general formula: $A-X_1-NO_2$ or their salts, wherein: A is $R(COX_u)_t$, wherein t is zero or 1 and u is zero or 1; and X is O, NH or NR_{1C} wherein R_{1C} is C_1-C_{10} alkyl; and R is (Ia) wherein R_1 is acetoxoy, preferably in ortho-position with respect to $-CO-$ and R_2 is hydrogen; or derivatives of acetylsalicylic acid; and X_1 is $-YO-$ wherein Y is C_1-C_{20} alkylene, C_5-C_7 cycloalkylene, oxy-alkyl derivatives and oxy-methyl benzyl derivatives.

In columns 15- 16, US'426 teaches the synthetic route by which these compounds are achieved.

In particular, US'426 teaches in column 16 lines 3-14

An alternative route to form the esters is a reaction of the sodium or potassium salts of the acids with the nitric esters of halogen alcohols of the general formula:



to directly give the products of the invention.

The reaction route is as follows:

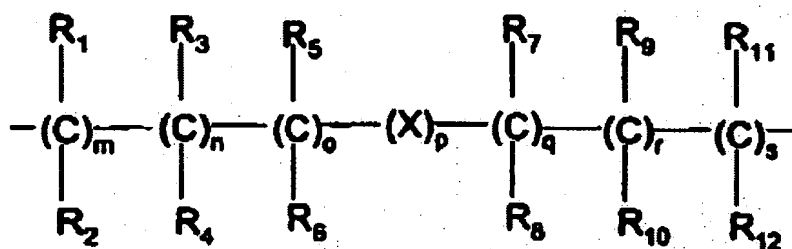


wherein YO is X_1 .

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The synthetic scheme outlined by US'426 is generically embraces the instant process, as well as teaching structurally similar compounds. The structurally similar compounds are correspondingly where R-CO-O-Na is instant compound of formula [B] and Br-Y-NO₂ is instant compound of formula [C] and R-CO-O-Y-NO₂ is compound of formula [A].

15. The difference from the claimed process and the prior art is that the prior art is directed to a broader genus. US'246 differs from the instant claims in the substituents of the instant compounds of formula [B], formula [C] and formula [D]; illustratively, when X₁ of US'246 corresponds to formula [C] is



16. This difference would not have been patentable because it would have been obvious, at the time of that Applicants' invention was made, to one of ordinary skill in the art to have employed a method to prepare nitrooxyester compounds or derivatives thereof with the teachings of US'246; with a reasonable expectation that the sub-genus would have a utility of the genus as a whole.

17. An artisan would have been motivated to employ the process scheme delineated by US'246 since the steps thereto show the generic reaction of a carboxylic salt and a nitrooxyhalide to form a product that embraces a generic version of instant formula [A] and the

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artisan would reach a reasonable expectation of success of preparing nitrooxyesters of the instant claims.

18. The instant claims are rendered obvious by the cited prior art reference.

19. No claims are allowed.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MLouisa Lao whose telephone number is 571-272-9930. The examiner can normally be reached on Mondays to Thursdays from 8:00am to 8:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



`ml109252007

MLouisa Lao

Examiner

Art Unit 1621

for YVONNE EYLER
SUPERVISORY PATENT EXAMINER
TC1600 GAU 1621